REMARKS/ARGUMENTS

Regarding the specification:

The title of the claimed invention has been retained as the title "An organic light emitting diode structure" clearly expresses the fact that the primary target of the claimed invention is an organic light emitting diode structure. Reconsideration of the original title is politely requested.

Regarding amendments to the claims:

Claims 1-19 are amended to overcome the objections set forth on the following detailed Office action, emphasize the characteristics of the claimed invention, and in the interests of clarity is reproduced above in toto. No new matter is entered by the above amendments.

Regarding rejections under 35 U.S.C. 102

Examiner:

1. **Claims 1-10 are rejected under 35 U.S.C 102(b) as being anticipated by Tanamura et al (US 6,306,559).**

Tanamura et al. teaches an organic light emitting diode (OLED) structure having a transparent conductive layer disposed on a top surface of a substrate, a width of a bottom surface of the transparent conductive layer being greater than a width of a top surface of the transparent conductive layer, an organic thin film disposed on the substrate and covering the transparent conductive layer, and a metal layer disposed on the organic thin film.

Response:

According the amended claim 1, an organic light emitting diode (OLED) structure is disclosed, in which the OLED structure includes a transparent conductive layer disposed on a top surface of a substrate, in which a width of a bottom surface of the transparent conductive layer being greater than a width of a top surface of the transparent conductive

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layer; an organic thin film disposed on the substrate, the organic thin film covering the transparent conductive layer and the edges of the transparent conductive layer; and a metal layer disposed on the organic thin film.

Preferably, the amended claim discloses that the organic thin film of the claimed invention covers not only the transparent conductive layer but also the edges of the transparent conductive layer. By covering the edges of the transparent conductive layer with the organic thin film, the claimed invention is able to prevent the current density generated at the edge of the transparent conductive layer from being too high and also prevent phenomena such as cracks and spots. In contrast to the claimed invention, the organic thin film disclosed by Tanamura et al does not cover the edges of the transparent conductive layer, thereby resulting in a structure that is significantly different than the one disclosed by the claimed invention. According to Tanamura et al, the deposition-prevention layer (3a) is disposed between the transparent conductive layer and the organic thin film, as shown in Fig. 1, in which the deposition-prevention layer serves to prevent the area around the edges of the transparent conductive layer (2) from being uneven while the layer is patterned. Since the deposition-prevention layer (3a) covers the edges of the transparent conductive layer, the organic thin film and the metal layer disposed on the deposition-prevention layer and the transparent conductive layer thereafter will form a protruding profile, as shown in Fig. 1b. The organic thin film and the metal layer of the claimed invention however, do not exhibit such protruding profile as shown in Tanamura et al's invention.

According to Chapter 2112 in the MPEP, in relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art. Since the inherency of an organic light emitting diode structure does not flow from the teachings of Tanamura et al, the amended claims 1-10

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should be novel based on the above analysis. Reconsideration of the amended claims 1-10 is politely requested.

Regarding rejections under 35 U.S.C. 103

Examiner:

2. Claims 11-19 are rejected under 35 U.S.C 103(a) as being unpatentable over Tanamura et al (US 6,306,559) in view of Hisamoto (US 5,321,295).

Despite the fact that Tanamura does not disclose the conductive layer has a step structure, Hisamoto teaches that an electrode can have a step structure for the purpose of increasing the resistance, and thus suppressing excessive current flow so as to prevent short-circuiting.

Response:

According to the amended claim 11, an organic light emitting diode structure includes a transparent conductive layer having a step structure on a top surface thereof disposed on a top surface of a substrate, a width of a bottom surface of the transparent conductive layer being greater than a width of a top surface of the transparent conductive layer; an organic thin film disposed on the substrate, the organic thin film covering the transparent conductive layer and the edges of the transparent conductive layer; and a metal layer disposed on the organic thin film.

Preferably, the amended claim discloses that the organic thin film of the claimed invention covers not only the transparent conductive layer but also the edges of the transparent conductive layer. By covering the edges of the transparent conductive layer with the organic thin film, the claimed invention is able to prevent the current density generated at the edge of the transparent conductive layer from being too high and also prevent phenomena such as cracks and spots. In contrast to the claimed invention, the organic

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In contrast to the claimed invention of utilizing transparent conductive layer on an organic light emitting diode (OLED) structure, the gate electrode disclosed by Hisamoto is utilized in a bipolar transistor. Additionally, the step-shaped gate electrode disclosed by Hisamoto is composed of non-transparent material, which is significantly different from the transparent material disclosed by the claimed invention. Moreover, the gate electrode is utilized to increase the resistance of the transistor, which is significantly different from the claimed invention of utilizing the transparent conductive layer to increase the covering ability of the organic thin film disposed thereon. Since the applicable target and functionality of the gate electrode disclosed by Hisamoto and the organic light emitting diode structure disclosed by Tanamura et al are significantly different from the target and function of the transparent conductive layer and the overall organic light emitting diode structure disclosed by the claimed invention, those skilled in the art would find it physically impossible to combine the references in the manner suggested.

Applicant respectfully requests that a timely Notice of Allowance be issued in this

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case.

Sincerely yours,

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Note: Please leave a message in my voice mail if you need to talk to me. (The time in D.C. is 13 hours behind the Taiwan time, i.e. 9 AM in D.C. = 10 PM in Taiwan.)

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